

FIG. 1

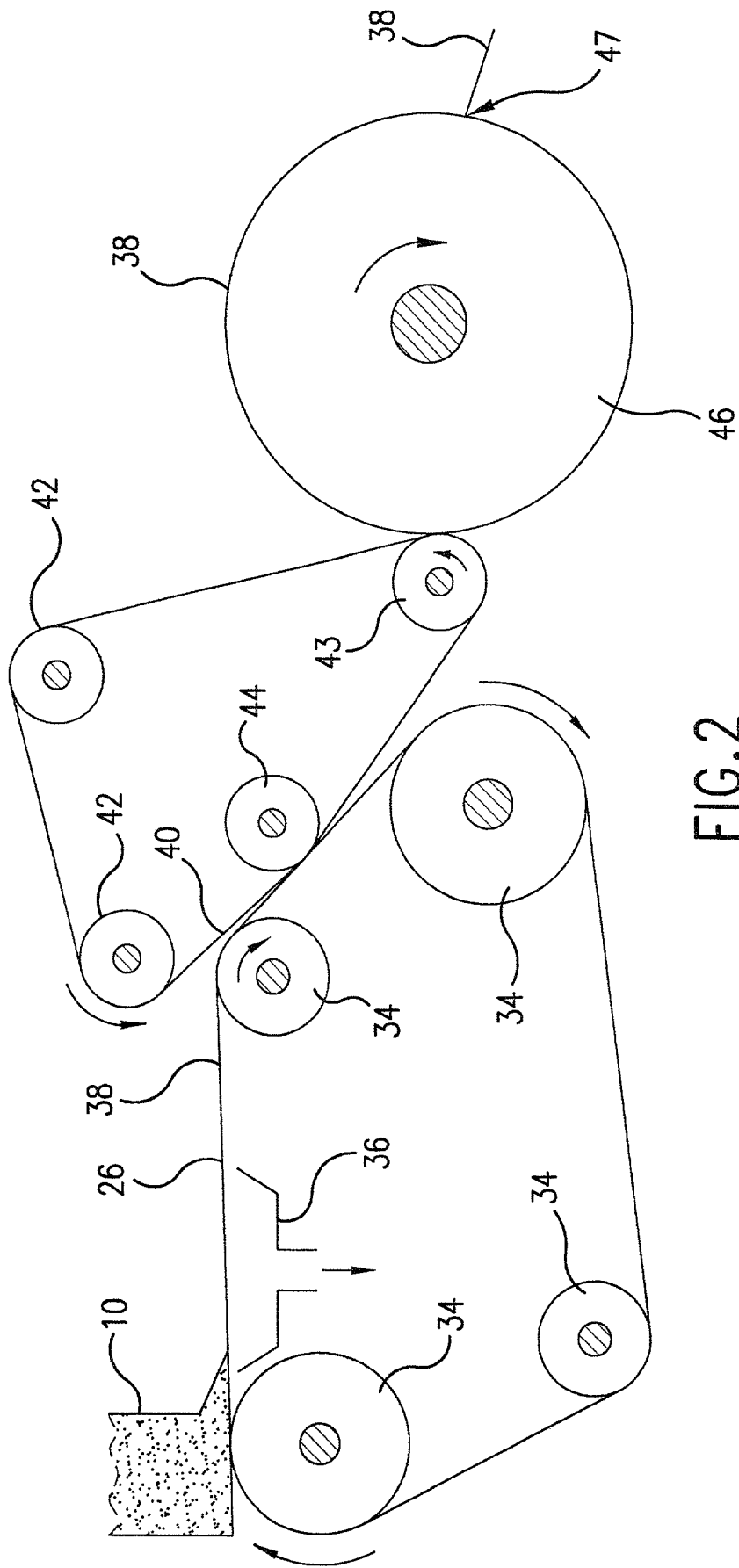
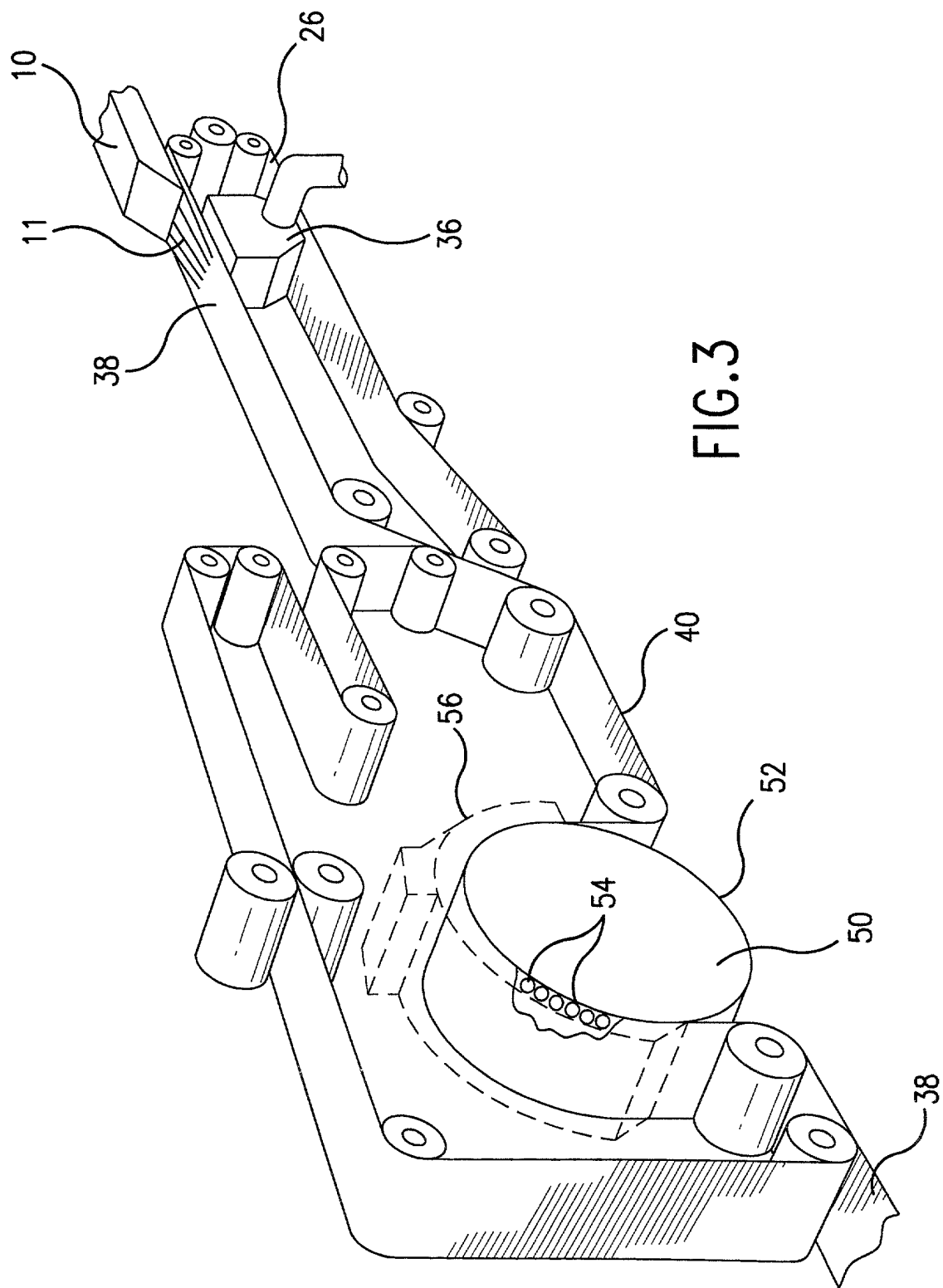


FIG. 2



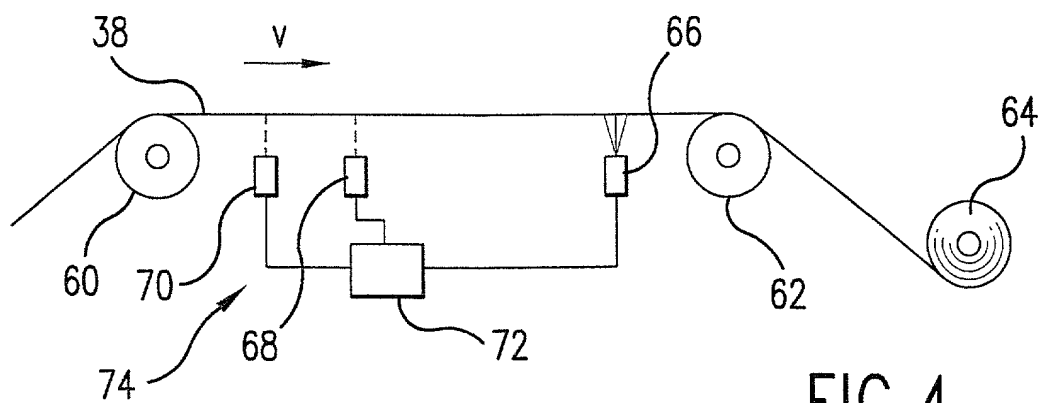


FIG. 4

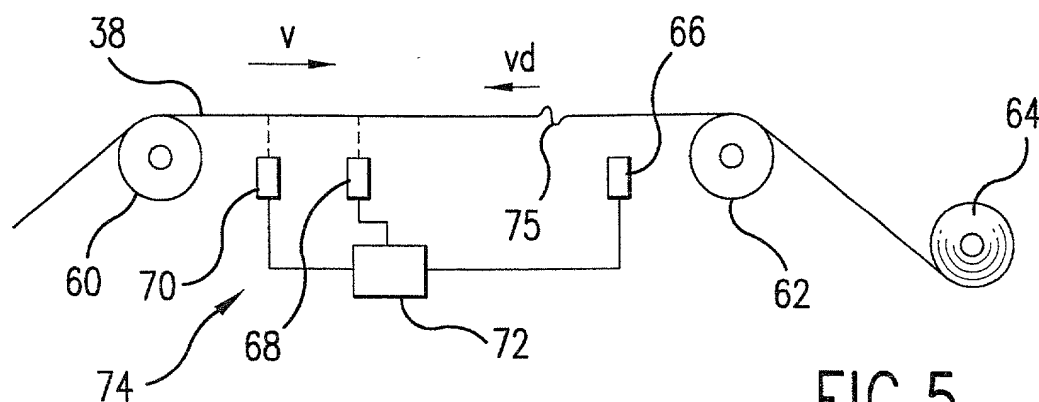


FIG. 5

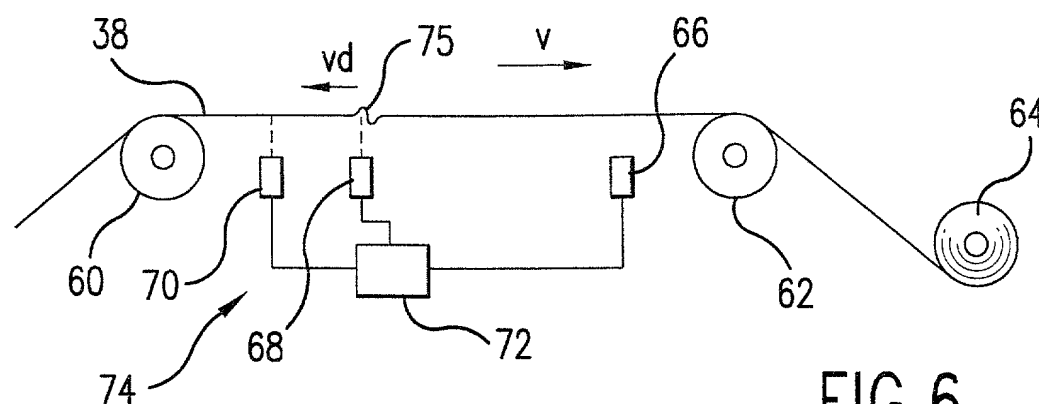


FIG. 6

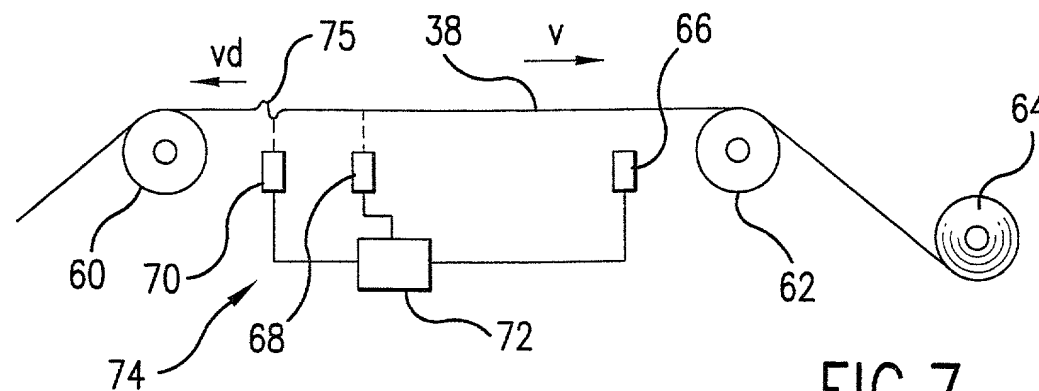


FIG. 7

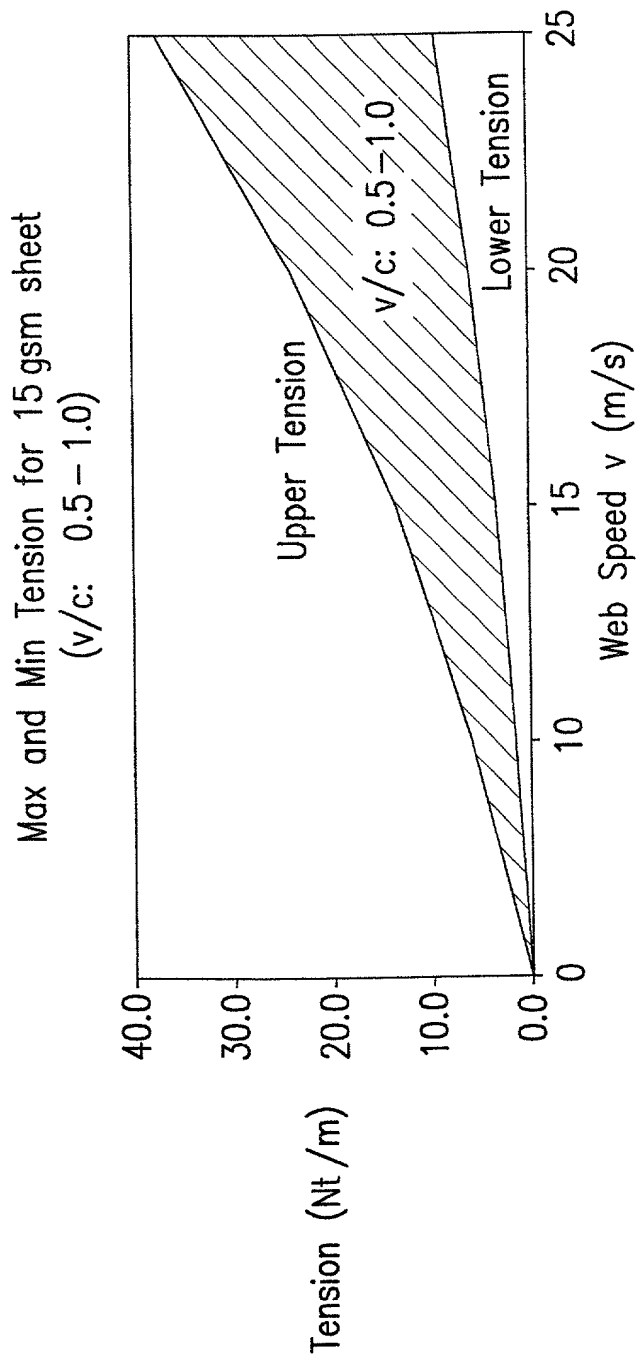


FIG.8

Tension during a turn - up with Hercobond addition on Tissue Machine #1.

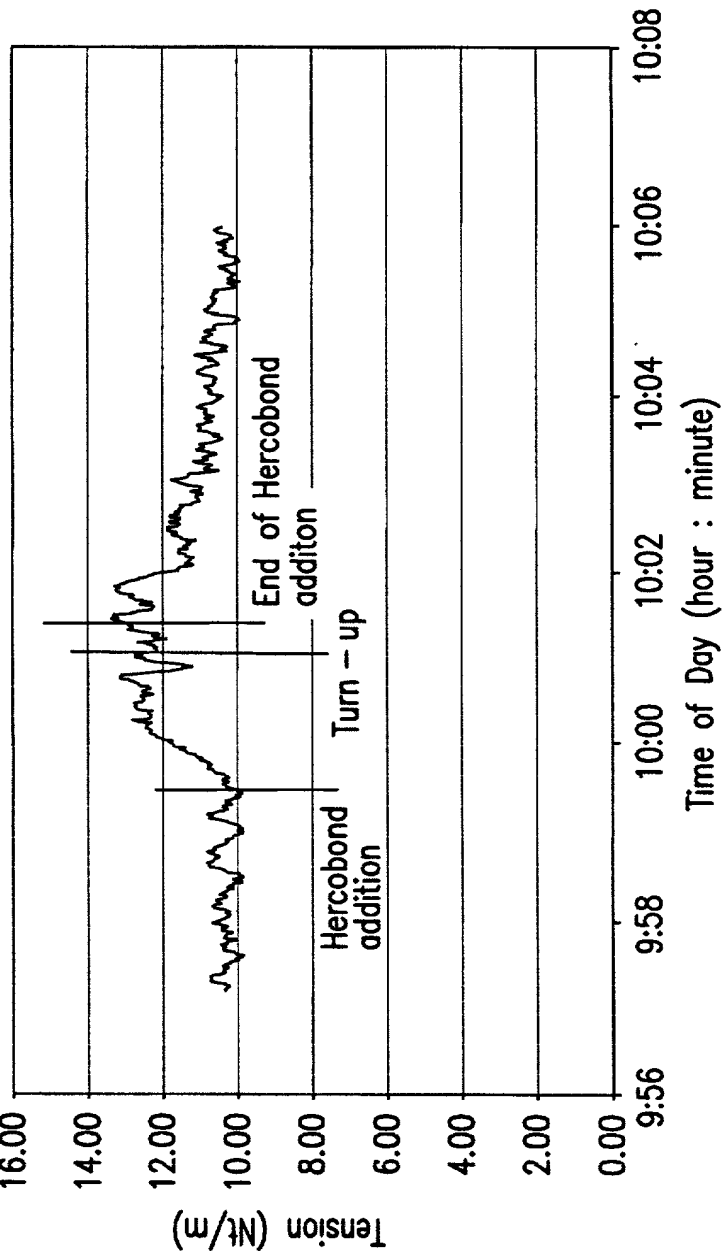


FIG.9

Tension during a turn - up without Hercobond on Tissue Machine #1.

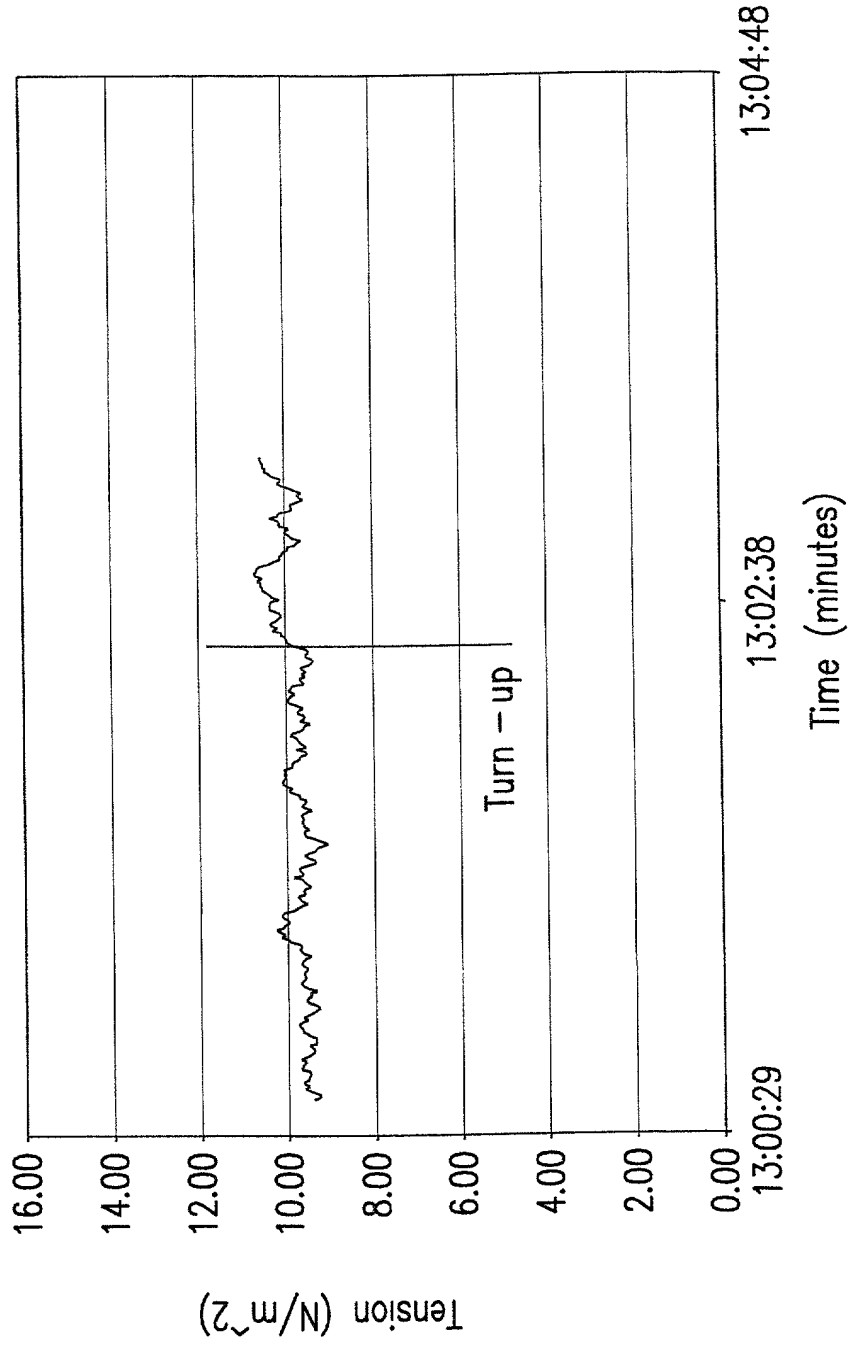


FIG.10

Changes in tension from different crepe ratios on Tissue Machine #1.

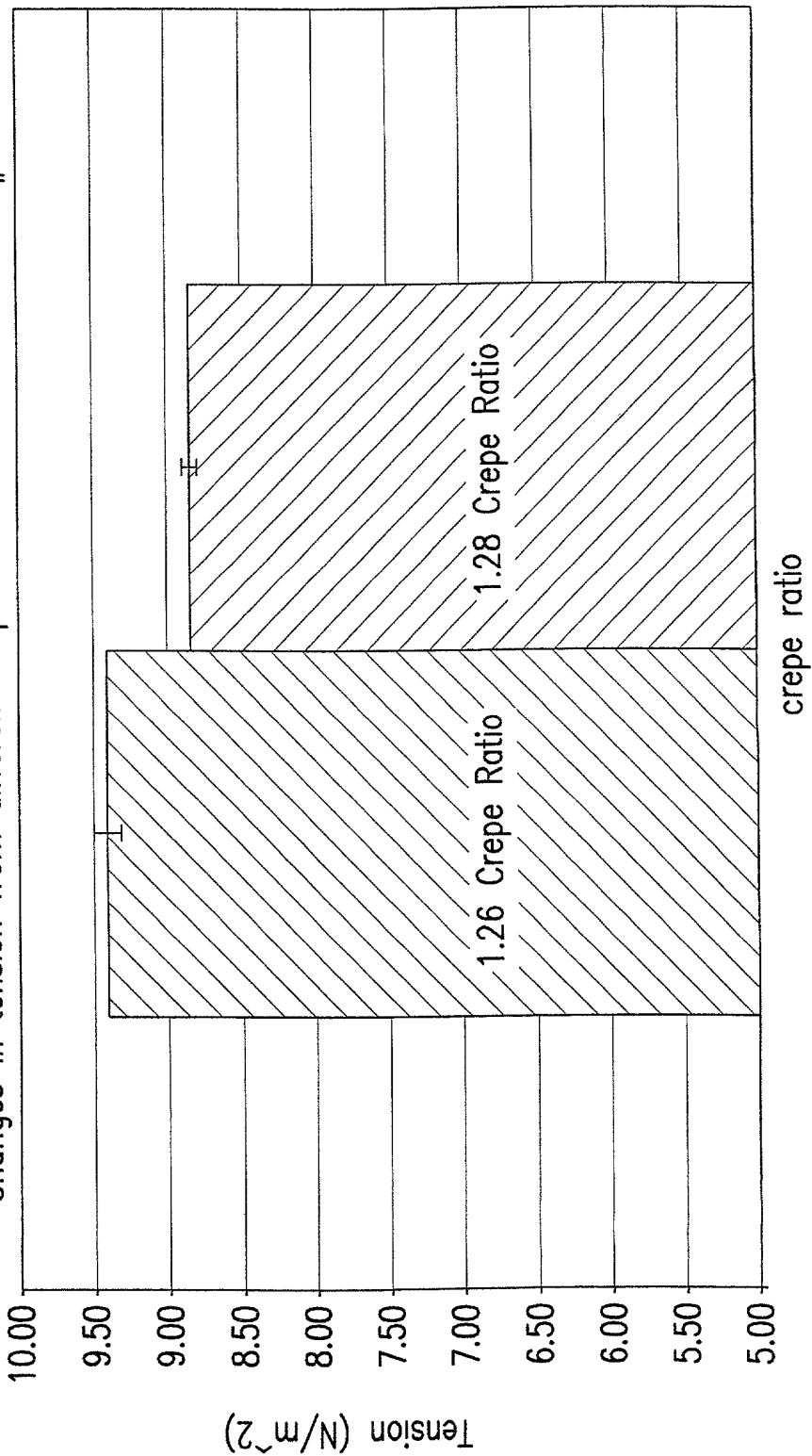


FIG.11

CD profile under Tissue Machine #1.

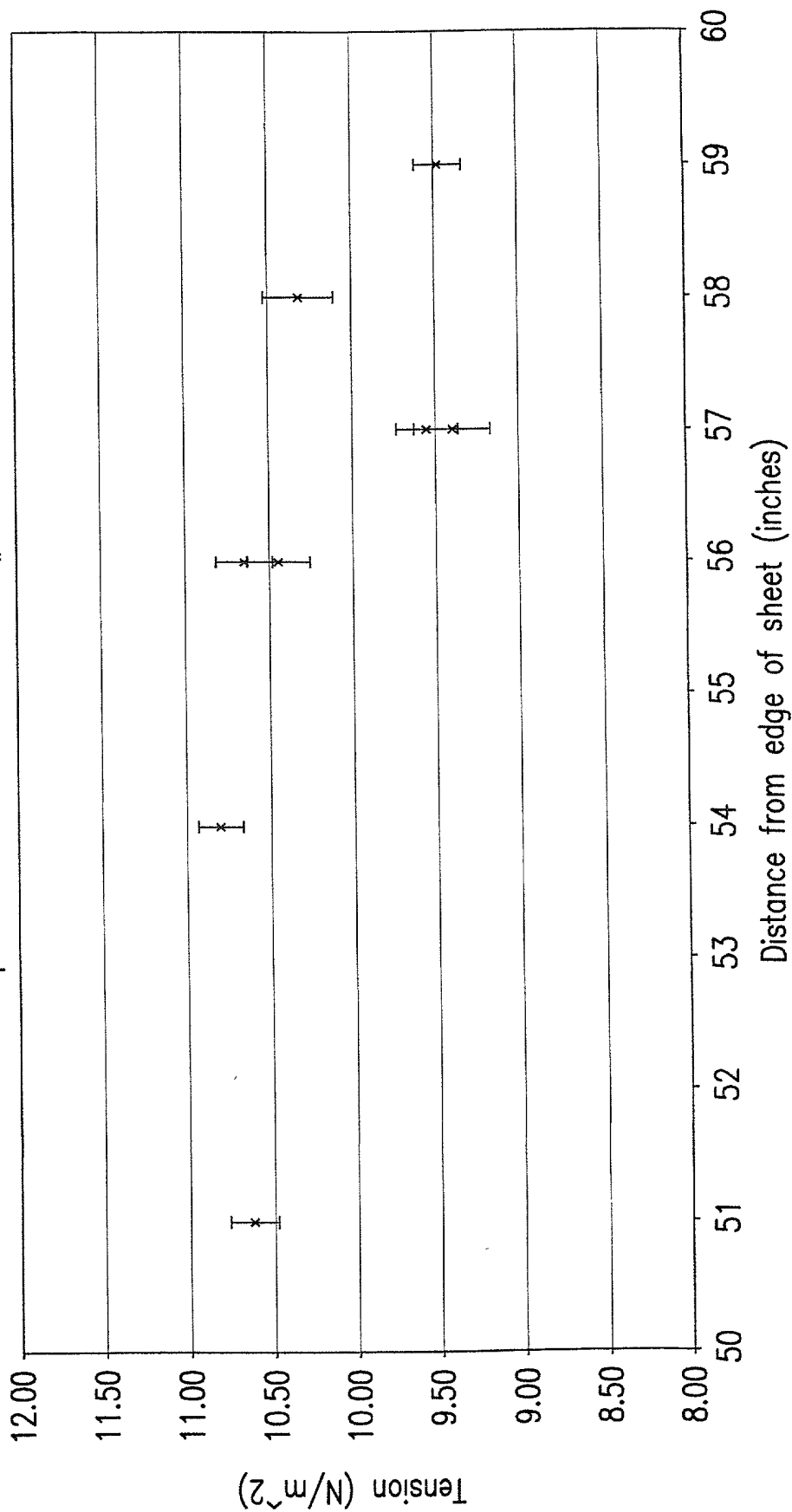


FIG.12

Tension measure through a continuous softroll on Tissue Machine #1.

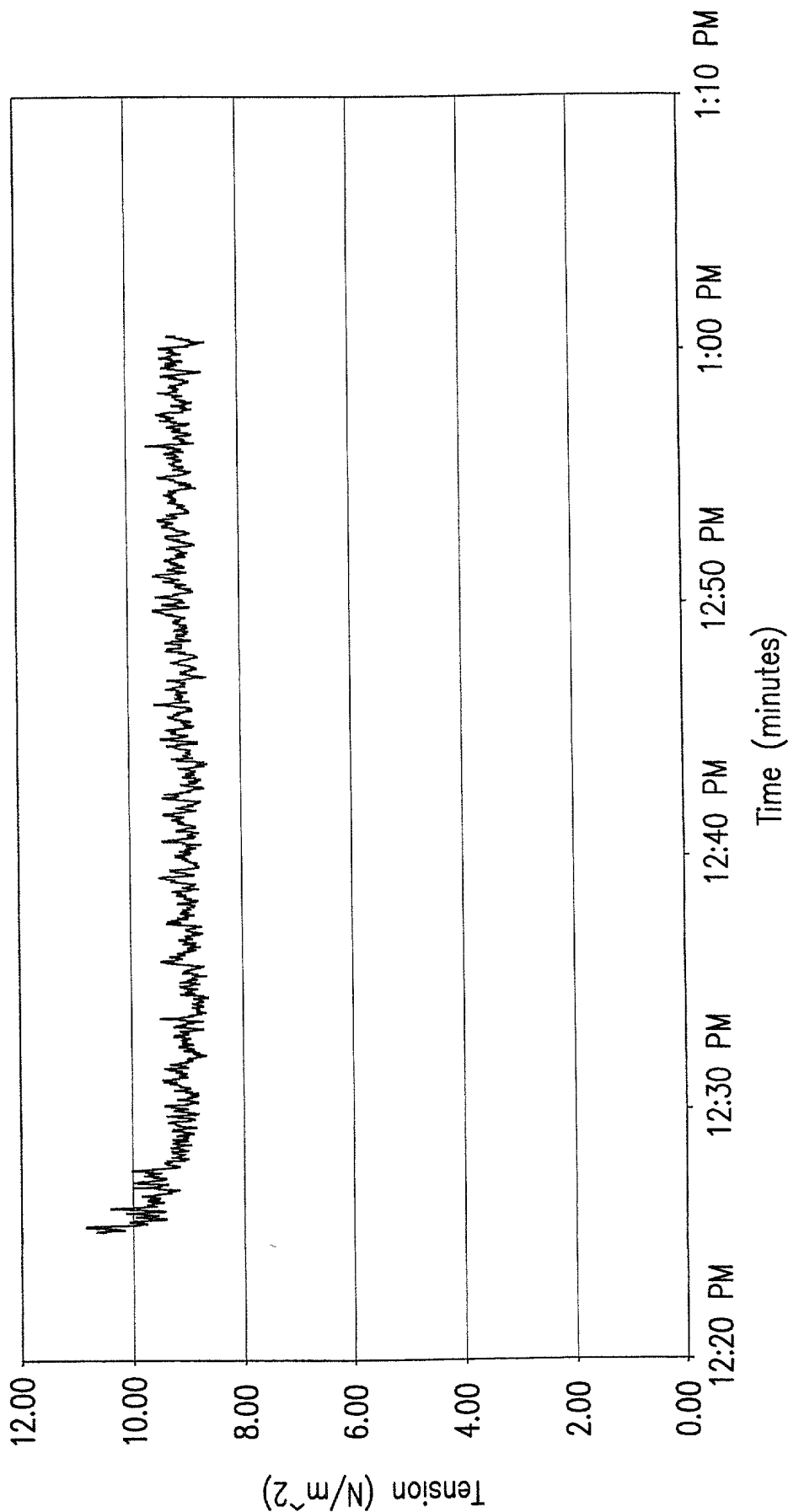


FIG.13

Tension measured with the DDWS foil raised and retracted on Tissue Machine #1.

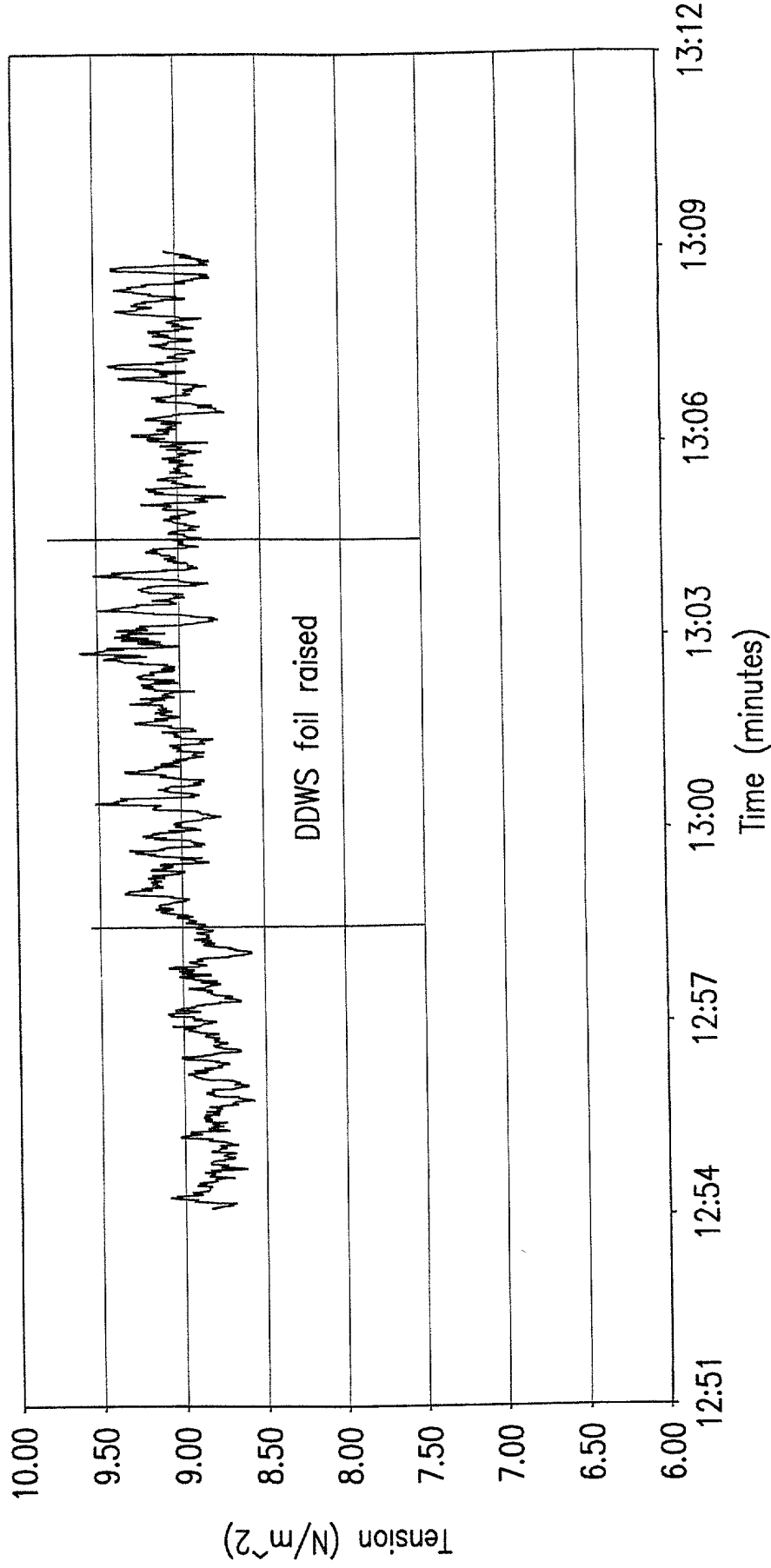


FIG.14

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graph TD
    A[FIRING OF AIR PULSE 66] --> B[SIGNALS FROM LASER DISPLACEMENT  
TRANSDUCERS 68 AND 70]
    B --> C[BANDPASS FILTERING OF DATA]
    C --> D[SIGNAL IS DIFFERENTIATED]
    D --> E[SIGNALS ARE MATHEMATICALLY  
CROSS-CORRELATED TO DETERMINE  
TIME DELAY]
    E --> F[WAVE SPEED  $v_d$  CALCULATED THROUGH  
TIME DELAY AND DISPLACEMENT NOTED  
BY LASER TRANSDUCERS 68 AND 70]
    F --> G[ $T = BW * (v_d + v)^2$ ]
    G --> H[CONTROL OF PROCESS CONDITION  
AS A FUNCTION OF T]
    H --> I[CONTROL OF LASER DISPLACEMENT  
TRANSDUCERS 68, 70 AND AIR PULSE 66]
    I --> A
  
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FIG. 15